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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,455	01/28/2004	R. David Morris	ATEX 8784US	3175
1688 7590 11/07/2007 POLSTER, LIEDER, WOODRUFF & LUCCHESI 12412 POWERSCOURT DRIVE SUITE 200 ST. LOUIS, MO 63131-3615			EXAMINER WEINSTEIN, LEONARD J	
			ART UNIT 3746	PAPER NUMBER
			MAIL DATE 11/07/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/766,455	Applicant(s) MORRIS ET AL.	
	Examiner Leonard J. Weinstein	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,7,9-11,13 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,7,9-11,13 and 16-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment of August 23, 2007. In making the below rejections and/or objections the examiner has considered and addressed each of the applicant's arguments.
2. The examiner acknowledges that claims 1, 4, 7, 9-11, 13, and 16-19 have been amended and claims 2-3, 5-6, 8, 12, and 14-15 have been canceled.

Information Disclosure Statement

3. The information disclosure statement filed March 20, 2006 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the statement submitted is not for the instant application as evidenced by a different inventor being listed on each page. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

It is noted that the examiner included the notification above in the office action July 29, 2007. This requirement has not been addressed with the amendment of August 23, 2007 and it is therefore requested that the applicant confirm that the information disclosure statement of March 20, 2005 does not pertain to the instant application and should be removed from the record of prosecution.

Claim Objections

4. Claims 13 and 16 are objected to because of the following informalities: the recitation of "the the inlet section" in both claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1, 4, 7, 9-11, 13, and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutton et al. 4,718,827 in view of Park 6,620,050. Sutton teaches all the limitations as claimed for a multi-stage turbine pump for an automotive vehicle including: (claims 1 and 11) a pump having an inlet section 16 through which low pressure fuel is drawn into the pump 10, the inlet section 16 includes an end cap 80 having a recess 150 formed therein, the pump 10 further having a first pump stage 76, which includes an impeller 98 and a port plate 102 in which the impeller 98 is installed, the port plate 102 having an open sided spaced channel 146 which has an internal sidewall 164 formed therein, and the pump 10 also

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includes a casing 104 in which a second impeller 122 is installed, the casing 104 having another recess 148 formed therein and the pump 10 further having an outlet section 30 through which high pressure fuel is discharged from the pump 10, a spring pin 154 extending between the recesses, elements 148 and 150, of the end cap 80 and the casing 104 and extending within the sidewall 164 of the open sided spaced channel 146 of the port plate 102 such that the circular sidewall 164 substantially encapsulates the spring pin 154 wherein the spring pin 154 aligns the inlet section 16 and the first and second pump stages, elements 76 and 72 respectively, such that expansion forces exerted by the spring 154 against the sidewall 164 dissipate through the end cap 80 and the port plate 102 (Sutton – col. 5 ll. 6-24); (claims 4 and 13) a second spring pin, element 154 shown in figure 2 on a far side of pump element 10 disposed on a side opposite to a first instance of element 154 about axis 13, for aligning the inlet section 16, the first and second pump stages, elements 76 and 72 respectively, and the outlet section 30, and including a second recess 150 formed in each of the end cap 80, and casing 104 and further including a second open sided spaced channel 146 formed in the port plate 102 in which the second spring pin 154 is received; (claim 9) a spring pin 154 made of a spring material, the springs 154 being compressed when the inserted in the channels 146 of the port plate 102 with the pins thereafter expanding against a sidewall 164 of the channels 146 with the force exerted by the pins 154 on the sidewalls 164 maintaining alignment of the inlet section 16 and the first and second pump stages, 76 and 72; (claim 10) two spring pins 154, clearly shown twice in figure 2, the open recesses, elements 150 and 148, formed in the end cap 80 and the casing 102 respectively, and the open sided spaced channels 146 formed in the port plate 102 are arranged in a predetermined angular relationship with each other for proper alignment of the fuel pump 10 components during pump assembly (col. 5 ll. 10-24); and

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(claim 17) an alignment means, as defined by elements 146, 148, 150, and 164, for use in a multistage turbine fuel pump 10 for aligning components comprising respective stages, elements 72 and 76, of the pump 10 the alignment means, as defined by elements 146, 148, 150, and 164, including a spring pin 154 made of a spring material and having a channel, as defined by elements 156 and 160 of element 154, formed therein such that the spring pin 154 when installed in the channel, as defined by elements 156 and 160 of 150, exerts a force on the components to maintain them in alignment (col. 5 ll. 6-24); (claim 18) pair of substantially identically formed spring pins 154, as shown in figure 2, the fuel pump 10 components, elements 146, 148, 150, and 164, including respective channels, as formed by element 146, for each pin 154 wherein the channels 146 substantially encapsulate each pin 154 (fig. 1); (claim 19) a pin 154 is compressed when inserted in a the channel 146 for the pins 154 to thereafter press against a sidewall 164 of the channel 146 in which it is inserted, the force exerted by the pin 154 on the channel sidewall 164 holding the components, elements 72 and 76, in alignment (col. 5 ll. 6-24); (claim 20) two spring pins 154 and the open channels 146 formed in which the spring pins 154 are received are arranged in a preferred orientation to properly align the components, elements 72 and 76, during pump 10 assembly (col. 5 ll. 10-24); (claim 21) and a two stage fuel pump 10 having an inlet end cap 80, a first stage port plate 102 and a second stage casing 104, the inlet end cap 80, port plate 102, and casing 104 each having open channels, elements 150, 146, and 148 respectively, formed therein in which the respective spring pins 154 are received, thereby to dissipate forces transferred from the spring pins 154 to these components, elements 72 and 76.

Sutton fails to teach the following limitations that are taught by Park for an alignment means for a motor driven apparatus wherein: (claim 1 and 11) a casing, as defined by elements

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30 and 40, has and internal circular sidewall 170 in an open sided spaced channel 130, a spring pin 150 extending within a circular sidewall 170; (claims 7 and 16) a spring pin 150 has a hollow, cylindrical shape with a longitudinal slot extending the length of the pin 150, clearly shown in figures 4-8; (claims 9 and 16) a plurality of pins 150 made of a spring material (Park - col. 3 ll. 35-40), the springs 150 being compressed when the inserted in the channel 130 of the with the pins 150 thereafter expanding against each circular sidewall 170 of the channels 130 with the force exerted by the pins 150 on the channel sidewalls 170 maintaining alignment of (Park col. 3 ll. 35-40). It would have been obvious to one having ordinary skill in the art the time the invention was made to modify the structure of an alignment assembly of a fuel pump to included circular channels capable of receiving cylindrical spring pins in order to increase an over strength a the pump assembly and aid in reducing vibration of components during operation (Park – col. 2 ll. 36-43).

Response to Arguments

8. Applicant's arguments with respect to claims 1, 11, and 17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a)

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will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is (571) 272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

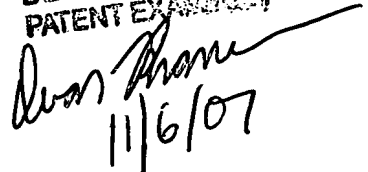
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Karmer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LJW

DEVON C. KARMER
PATENT EXAMINER



11/6/07